REMARKS

Applicants respectfully request examination in view of the instant response. Claims 21-40 remain pending in the case. Claims 21-34 are rejected. Claims 21 and 28 are amended. New Claims 35-40 are added. No new matter has been added.

NEW CLAIMS

Applicants have added new claims 35-40. Support for Claims 35-40 may be found in the instant specification at least at page 31, line 5 through page 32, line 7. Applicants respectfully assert that the prior art fails to teach or suggest the limitations of new Claims 35-40. Therefore, Applicants respectfully request allowance of Claims 35-40.

RESPONSE TO EXAMINER'S RESPONSE

Applicants appreciate Examiner's remarks, and independent Claims 21 and 28 are amended herein to recite that "said high priority notification handler is directly associated only with said peripheral device." Furthermore, Applicants respectfully assert that the specification does support such limitations. For instance, the specification specifically recites that "each high priority notification handler will directly catch and service an interrupt from its respective peripheral device when such an interrupt is sent via the communications port, without the aid of the HotSync interrupt notification handler" (page 31, lines 8-11; emphasis added). Moreover, "each device-specific interrupt will directly alert its own

special high priority notification handler(s) which will then perform the necessary action appropriate for the device generating the interrupt" (page 31, lines 14-16; emphasis added).

Applicants respectfully disagree with the Examiner's reading of the specification. Applicants submit that the embodiment of the present invention described at page 31, lines 5-16, does not disclose that "the peripheral devices will be identified via peripheral IDs in a data string, such that the notification handlers actually identifies the device based on these data strings," as stated by the Examiner (page 3, lines 11-14, Detailed Action). In contrast, in the described embodiment "the processing steps described above with respect to the various actions of the HotSync interrupt notification handler are no longer required in this alternative embodiment" (page 31, lines 11-14).

The actions of the HotSync interrupt notification handler are described in accordance with Figure 7 of the present application, at page 24, line 7, through page 31, line 3. The use of "matching peripheral ID(s) in the data string," as cited by the Examiner, is described in specification in accordance with the description of the HotSync interrupt notification handler, at page 30, lines 6-13. Therefore, Applicants respectfully assert that the use of "matching peripheral ID(s) in the data string" is not disclosed in the embodiment of the present invention describe at page 31, lines 5-16, of the present specification. Moreover, this teaching is specifically not required in this embodiment.

<u>35 U.S.C. §102(e)</u>

Claims 21-25 and 28-32 stand rejected under 35 U.S.C. §102(e) as being anticipated by United States Patent 6,460,105 by Jones et al., hereinafter referred to as the "Jones" reference. Applicants have reviewed the cited reference and respectfully submit that the embodiments of the present invention as recited in Claims 21-25 and 28-32 are not anticipated by Jones.

Applicants respectfully direct the Examiner to independent Claim 21 that recites that an embodiment of the present invention is directed to (emphasis added):

> A method for identifying a peripheral device detachably coupled to a computer system, said method comprising:
> receiving a device-specific interrupt from said peripheral device, said peripheral device being coupled to a communications port of said computer system;
> responsive to said device-specific interrupt, <u>posting an interrupt notification message to alert a high priority device-specific notification handler without identifying said peripheral device, wherein said high priority notification handler is directly associated only with said peripheral device</u>, said high priority device-specific notification handler having a higher priority than a system interrupt notification handler and being capable of directly servicing an interrupt from said peripheral device without involving said system interrupt notification handler; and
> servicing said interrupt notification message upon receipt thereof.

Independent Claim 28 recites similar limitations. Claims 22-25 that depend from independent Claim 21 and Claims 29-32 that depend from independent Claim 28 provide further recitations of the features of the present invention.

Jones and the claimed invention are very different. Applicants understand Jones to teach a method and system for transmitting interrupts from a peripheral device to another device in a computer system. In particular, Jones teaches a computer system including an event handler for handling events, also referred to as interrupts, generated by a plurality of different peripheral devices. Moreover, the interrupt message includes the identification of the peripheral device such that an interrupt handling routine is executed depending on the identification of the peripheral device (Abstract).

With reference to Figure 2 of Jones, a computer system is shown having a plurality of ports for receiving interrupts from a plurality of peripheral devices. Each port has an event assembler 8 for generating an event packet to cause an interrupt (col. 3, lines 28-41). Each event packet is received at event handler 15 (col. 7, lines 7-9). In particular, there is only one event handler 15, and event handler 15 handles interrupts for all peripheral devices. Specifically, "[t]he correct interrupt service routine is identified from a table held in the CPU memory by the DEVICE ID and priority indicator bits of the event packet" (col. 8, lines 41-43; emphasis added). Accordingly, Applicants respectfully assert that event handler 15 is operable to handle interrupts for multiple different peripheral devices and types of peripheral devices.

In contrast, embodiments of the claimed invention are directed towards a method for identifying a peripheral device detachably coupled to a computer system including "responsive to said interrupt, posting an interrupt notification message to alert a high priority device-specific notification handler without identifying said peripheral device, wherein said high priority notification handler is directly associated only with said peripheral device" (emphasis added). As described in the present specification, a high priority device-specific notification handler is able to handle and service an interrupt from a respective peripheral device. In particular, "each device-specific interrupt will directly alert its own special high priority notification handler(s) which will then perform the necessary action appropriate for the device generating the interrupt" (page 31, lines 14-16; emphasis added). Moreover, the device-specific notification handler has a higher priority than the system interrupt notification handler (e.g., the HotSync interrupt notification handler). Specifically, the priority is based on the notification handler rather than the interrupt (page 31, lines 5-16).

Applicants respectfully assert that nowhere does Jones teach, disclose or suggest the claimed embodiments of the present invention as recited in independent Claims 21 and 28, that these claims overcome the rejection under 35 U.S.C. § 102(e), and are in a condition for allowance. Therefore, Applicants respectfully submit that Jones also does not teach, disclose or suggest the additional claimed features of the present invention as recited in Claims 22-25 that depend from independent Claim 21 and Claims 29-32 that depend from

independent Claim 28. Applicants respectfully submit that Claims 22-25 and 29-32 overcome the rejection under 35 U.S.C. § 102(e) as these claims are dependent on an allowable base claim.

35 U.S.C. §103(a)

Claims 26, 27, 33 and 34 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Jones in view of United States Patent 5,708,816 by Culbert, hereinafter referred to as the "Culbert" reference. Claims 26 and 27 depend from independent Claim 21 and Claims 33 and 34 depend from independent Claim 28. Applicants have reviewed the cited reference and respectfully submit that the embodiments of the present invention as recited in Claims 26, 27, 33 and 34 are not unpatentable over the combination of Jones and Culbert in view of the following rationale.

As described above, Jones and the claimed invention are very different. Applicants understand Jones to teach an event handler for handling events generated by a plurality of different peripheral devices. In particular, the event handler of Jones is capable of handling events generated by a plurality of different peripheral devices. Moreover, by teaching an event handler that is capable of handling events generated by different peripheral devices, Jones teaches away from a "posting an interrupt notification message to alert a high priority device-specific notification handler without identifying said peripheral

device, <u>wherein said high priority notification handler is directly associated only</u> <u>with said peripheral device</u>" as claimed (emphasis added).

Moreover, the <u>combination</u> of Jones and Culbert fails to teach or suggest the claimed invention, because Culbert does not overcome the shortcomings of Jones. Culbert, alone or in combination with Jones, does not show or suggest the claim embodiments. Applicants understand Culbert to teach a method and apparatus for interrupt management for a low power PDA. With reference to Figure 1, Culbert teaches an ASIC 102 including a register bank 136 for handling multiple interrupts "such as the insertion or removal of input/output (I/O) devices."

Specifically, Applicants respectfully assert that Culbert does not teach, describe or suggest a "posting an interrupt notification message to alert a high priority device-specific notification handler without identifying said peripheral device, <u>wherein said high priority notification handler is directly associated only</u> <u>with said peripheral device</u>" as claimed (emphasis added). Moreover, by teaching a bank of registers for handling multiple interrupts based on the insertion or removal of multiple I/O device, Applicants respectfully assert that Culbert teaches an event handler that is not device-specific, and thus <u>teaches</u> <u>away from</u> a "posting an interrupt notification message to alert a high priority device-specific notification handler without identifying said peripheral device, wherein said high priority notification handler is directly associated only with said peripheral device" as claimed.

Therefore, in view of the claim embodiments not being shown or suggested in either Jones or Culbert, in combination with the above arguments, Applicants respectfully submit that independent Claims 21 and 28 overcome the rejection under 35 U.S.C. § 103(a) and are therefore allowable over the combination of Jones and Culbert. Applicants respectfully submit that the combination of Jones and Culbert also does not teach or suggest the additional claimed features of the present invention as recited in Claims 26 and 27 that depend from independent Claim 21 and Claims 33 and 34 that depend from independent Claim 28. Therefore, Applicants respectfully submit that Claims 26, 27, 33 and 34 overcome the rejection under 35 U.S.C. § 103(a), and are in a condition for allowance as being dependent on an allowable base claim.
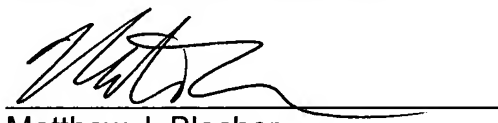
CONCLUSION

Based on the amendments presented above, Applicants respectfully

assert that Claims 21-34 overcome the rejections of record and, therefore,

Applicants respectfully solicit allowance of these Claims.

The Examiner is invited to contact Applicants' undersigned representative

if the Examiner believes such action would expedite resolution of the present

Application.

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Respectfully submitted,
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